

**Amendment to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1-118. (*cancelled*)

119. (*currently amended*) A recombinant or synthetic polynucleotide encoding a protein that comprises an amino acid sequence at least 60% identical to SEQ. ID NO:118 when the entire sequence of said protein is optimally aligned with SEQ ID NO:118, and that comprises each of the following structures in the order amino terminus-(f)-(a)-(b)-(c)-(d)-(e)-carboxy terminus:

- a) X<sub>3</sub>-Arg-X<sub>2</sub>-Pro-Lys-X<sub>3</sub> (SEQ. ID NO:139)
- b) X-Arg-X-Ile-X (SEQ. ID NO:143)
- c) X<sub>4</sub>-Phe-X<sub>3</sub>-Asp-X<sub>4</sub>-Tyr-Asp-X<sub>2</sub> (SEQ. ID NO:144)
- d) Tyr-X<sub>4</sub>-Gly-X<sub>2</sub>-Gln-Gly-X<sub>3</sub>-Ser-X<sub>8</sub> (SEQ. ID NO:146)
- e) X<sub>6</sub>-Asp-Asp-X-Leu-X<sub>3</sub> (SEQ. ID NO:147) ; and
- f) either: Trp-R<sub>1</sub>-X<sub>7</sub>-R<sub>1</sub>-R<sub>1</sub>-R<sub>2</sub>-X-Phe-Phe-Tyr-X-Thr-Glu-X<sub>8</sub>-R<sub>3</sub>-R<sub>3</sub>-Arg-R<sub>4</sub>-X<sub>2</sub>-Trp (SEQ. ID NO:16), or: Trp-R<sub>1</sub>-X<sub>7</sub>-R<sub>1</sub>-R<sub>1</sub>-R<sub>2</sub>-X-Phe-Phe-Tyr-X-Thr-Glu-X<sub>9</sub>-R<sub>3</sub>-R<sub>3</sub>-Arg-R<sub>4</sub>-X<sub>2</sub>-Trp (SEQ. ID NO:17);

wherein R<sub>1</sub> is Leu or Ile; R<sub>2</sub> is Gln or Arg; R<sub>3</sub> is Phe or Tyr; R<sub>4</sub> is Lys or His, X represents an unspecified amino acid and X<sub>n</sub> represents the number n of consecutive unspecified amino acids; and wherein the protein has telomerase catalytic activity when complexed with a telomerase RNA component.

120-126. (*cancelled*)

127. (*withdrawn*) A method for increasing proliferative capacity of a cell of a vertebrate species, comprising expressing the polynucleotide of claim 119 in the cell in vitro.